REMARKS

Claims 33- 49 and 51 are pending in the present application. Reconsideration of the claims is respectfully requested.

35 USC §103, Obviousness

The Examiner has rejected claims 33-36, 39-42, 45-48, and 51 under 35 USC §103(a) as being unpatentable over Loder (US Pat. 5,748,720) in view of Wallenius (US Pat. 6,625,268). This rejection is respectfully traversed.

In rejecting the claims, the Examiner writes:

> Regarding claims 33, 42, 48, Loder teaches a prepaid wireless communications system comprising: (a) at least one wireless service provider (e.g., home network – see col. 1m line 48); (b) a prepaid application server that stores an amount of authorized time units available in a registered account for use with said wireless service provider (see col. 1, lines 44-48); and (c) a mobile device containing a subscriber identity module (SIM) that corresponds to said registered account on the prepaid application server, wherein the SIM includes memory that stores said amount of time units available in the account, and wherein the SIM stores a prepaid application that independently monitors the duration of wireless service used by the mobile device and decreases the amount of available time units in memory accordingly, and wherein the prepaid application stored on the SIM instructs the mobile device to disconnect from the wireless service if the amount of available time unites reaches a predetermined minimum value (see column 3, lines 26-43). Loder does not explicitly teach that the predetermined minimum value is 0. However, it would have been obvious to have set the predetermined minimum value 0 in order to prevent the user from using unpaid minutes. Loder does not explicitly teach that the prepaid fund is related to the amount of time. However, the preceding limitation is taught in Wallenius (e.g., user of a mobile station can purchase a smart card similar to the SIM card, in which a call time is preprogrammed for a given sum of money, see column 3, lines 3-5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Wallenius to the teaching of Loder to make clear to the user the amount of time available for a given sum of money.

The references cited by the Examiner, both alone and in combination, fail to teach the limitations recited in the independent claims. Of central importance is the fact that both Loder and Wallenius rely on tariffs to calculate monetary charges based on elapsed

time. Both inventions also deal with changes in call tariffs under specified circumstances.

Loder deals more specifically with prepaid SIM cards, but the functionality of the SIM card differs from that recited in the present claims, and the Loder invention still requires interaction and signaling between the SIM card and network that the present invention eliminates.

Loder teaches a prepaid SIM with memory that stores a record of an amount of *funds*, not time units (see col. 2, lines 25-26; col. 2, lines 43-44; col. 5, lines 41-44). During phone calls, the amount of funds in the prepaid record is reduced according to a specified tariff rate (see col. 2 lines 27-29 and lines 45-48; col. 5, lines 44-46). The cost value is calculated by multiplying the elapsed time the by the tariff rate (see col. 6, lines 60-63; col. 8, lines 13-15).

The tariff rate is provided in one of two ways in the Loder system. The first way is to send the tariff rate over the network (see col. 2, lines 28-29 and lines 59-61; col. 6, lines 42-46). The second method is to preprogram the tariff rate into the SIM card (see col. 2, lines 45-48; col. 3, lines 31-33; col. 6, lines 63-65). Regardless of which method is used to provide the tariff, the Loder device has to first calculate a monetary charge from elapsed time based on this tariff and then deduct that charge from a funds balance. As a result, both methods of providing the tariff rate require more resources than the present invention.

Unlike Loder, the present invention bypasses the need to provide tariffs because it only deals in time units, not funds. Therefore, there is no calculation of monetary charges in the present invention. This gives the present invention several distinct advantages over Loder. The first option in Loder of providing tariff rates over the network via "e" parameters requires additional signaling and network traffic that is not required by the present invention.

Alternatively, preprogramming the tariff rate into the SIM card uses additional memory in the SIM that is not needed by the present invention. Another potential shortcoming of preprogramming the tariff into the SIM card is the movement of the SIM between regions or networks that use different tariffs. This would require either additional memory in the SIM to be allocated for storing the different tariff rates or an

update of the new tariff rates via the network, thereby requiring additional signaling and network traffic. By dealing strictly in time units without the need to calculate monetary charges, the present invention avoids these problems.

All of the embodiments of Loder send an Advice of Charge "e" parameter over the network during call setup with the prepaid SIM card based on the tariff model (see col. 6, lines 36-40, step 42 in Fig. 4, step 52 in Fig. 5, step 62 in Fig. 62, step 73 in Fig. 7, and step 81 in Fig. 8). By dealing only in time units and avoiding the use of a tariff model the present invention eliminates the need to send these Advice of Charge signals during call setup.

The Examiner asserts that Wallenius teaches using flat rate time units. However, a close reading of Wallenius reveals that it does in fact employ a tariff model and varies the amount of charge for network use time according to defined events that may occur during a call.

Wallenius has little relevance to the functionality of prepaid SIM cards per se and concentrates on network side management of call events that effect call features and resources assigned to a call, including changes to tariffs. The problem addressed by the Wellenius invention relates to a method of notifying a service control point in an intelligent network of the use of supplementary services at the service switching point (see col. 2, lines 50-55). One of those supplementary services is the use of a prepaid SIM card:

> A third example of supplementary services which are recurrently reported is the use of what is called a prepaid SIM card (prepaid SIM service). The purpose of this service is to provide a mobile communication system of the GSM type with prepaid SIM cards (Subscriber Identity Module). The use of these cards is similar to that of a prepaid phonecard, i.e. the user of a mobile station can purchase a smart card similar to the SIM card, in which a call time is preprogrammed for a given sum of money. Although for the subscriber the use of the prepaid SIM card is similar to that of the prepaid phone card, its operation is totally different for a network and for a telephone operator, since equipment which reduce call time programmed in the card cannot be installed in the mobile station (at least afterwards). In case it is a desire to implement such a prepaid SIM service, it is to be done on the network side. The above intelligent network standards are not provided with a mechanism to inform the service control point SCP of such services. (Col. 2, line 63 – col. 3, line 14)

Wallenius addresses this problem by using messages already defined in the intelligent network standards in a new manner (see col. 3, line 66 – col. 4, line 1).

The basic operation of the Wallenius invention involves establishing an initial call tariff based on the attributes of the call state, call resources and/or supplementary service (see col. 4, lines 12-15). During the call, the service switching point reports call-related events that effect the attributes defining the call tariff (see col. 4, lines 22-24). In response to these events, the service control point changes the call tariff (see col. 4, lines 25-27).

Examples of call events that might change the call tariff include an in-call inquiry call, setting up a conference call or the change in the number of channels in data-transmission (See col. 7, lines 17-20).

The same model is applied to the case of prepaid SIM cards. Prepaid call time is represented by a data element (see col. 8, lines 20-21). This data element may represent a sum of money or can be changed to show charging pulses that indicate the duration of a call (see col. 8, lines 42-44). Superficially, it may appear that Wallenius teaches using flat rate time units. However, unlike the present invention, which deals strictly with elapsed time units, Wallenius does not reduce the data element at a fixed rate merely as a function of elapsed time but instead uses a tariff to calculate the rate of reduction. This tariff changes according to call events which affect call price formation, thereby changing the rate of reduction of the data element (see col. 8, lines 29-41; col. 9, lines 4-7 and lines 15-19).

Furthermore, the prepaid call time in Wallenius is stored and managed on the network at the service control point, not the SIM (see col. 8, lines 50-53).

Therefore, the proposed combination of Loder and Wallenius does not produce all of the limitations recited in claims 33, 42, 48.

Because claims 34-36, 39-41, 45-47, and 51 depend from claims 33, 42 and 48, respectively, they are distinguished from Loder and Wallenius for the reasons explained above. In addition, the dependent claims recite limitations not taught or suggested by the references.

For example, regarding claims 35 and 51, neither Loder nor Wallenius teaches if the duration of use reported by the wireless service provider exceeds the authorized

amount of available time units the prepaid application server concludes fraudulent activity. The section if Loder cited by the Examiner merely describes the network ending a call if it does not receive an acknowledgment from the SIM confirming that sufficient funds remain on the card:

> Upon receiving the charging information message, the SIM checks the remaining value of the payment and prevents the transmission of the acknowledgement in response to the value not being sufficient for the call. Not receiving the acknowledgement within a preset time, the network terminates the ongoing call or set-up procedure. (col. 3, lines 46-50)

There is no mention of fraud detection in this description.

The Examiner has also rejected claims 37, 43 and 49 under 35 USC §103(a) as being unpatentable over Loder in view of Wallenius and Doran et al. (US Pub. No. 2006/0069642). This rejection is respectfully traversed.

Because claims 37, 43 and 49 depend from claims 33, 42 and 48, respectively, they are distinguished from Loder and Wallenius for the reasons explained above. The paragraph in Doran cited by the Examiner does not teach the limitation of send a message to the SIM to update the SIM card balance to bring it in line with the server:

> [0035] In a further embodiment, a user can use the machine 100 to "reload" or add funds to a card (e.g., a cash, credit, or stored-value card). In this embodiment, the user utilizes the touch screen 117, the first keypad 114, and/or the user-selection buttons 115 to select the "reload" or "recharge" transaction, then swipes the card they would like to reload through the card reader 202. The user then deposits payment for the reload amount using coin, currency, and/or credit as described above. After confirming the receipt of funds, the machine 100 dispenses a receipt to the user via the receipt outlet 212. The funds received from the user are then credited to the desired card (or associated account), and are available for use immediately or within a relatively short time. In this embodiment and the previous embodiment, the user is not required to place a telephone call to a third-party service, such as a prepaid credit card account issuer, to activate the account.

As can be seen Doran merely teaches reloading a credit or charge card at a point of sale. It has nothing to do with updating a SIM card via a network. Therefore, the proposed combination of Doran with Loder and Wallenius does not produce the limitations recited in claims 37, 43 and 49.

The Examiner has rejected claims 38 and 44 under 35 USC §103(a) as being unpatentable over Loder in view of Wallenius, Doran and Laybourn et al. (US Pub. No. 2003/0008634). This rejection is also traversed.

Because claims 38 and 44 depend from claims 37 and 43, respectively, they are distinguished from Loder, Wallenius and Doran for the reasons explained above. Therefore, the addition of SMS messages from Laybourn does not produce all of the limitations recited in claims 38 and 44.

It is respectfully asserted that the rejection of claims 33-49 and 51 under 35 USC §103 has been overcome and should be withdrawn.

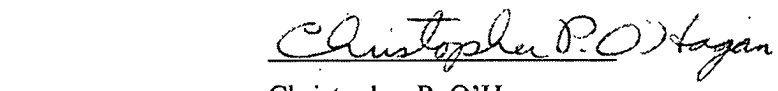
Conclusion

It is respectfully urged that the subject application is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

DATE: February 9, 2009

Respectfully submitted,



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